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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,183	10/02/2003	Zev Kopel	6239-16	8306

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EXAMINER

BUSHEY, CHARLES S

ART UNIT PAPER NUMBER

1724

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/677,183

Applicant(s)

KOPEL ET AL

Examiner

Scott Bushey

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2005.  
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.  
4a) Of the above claim(s) 28 and 29 is/are withdrawn from consideration.  
5) ☒ Claim(s) 1-8 is/are allowed.  
6) ☒ Claim(s) 9, 10, 16 and 20-23 is/are rejected.  
7) ☒ Claim(s) 11-15, 17-19 and 24-27 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10-2-03.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

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## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Group I, claims 1-27 in the reply filed on March 11, 2005 is acknowledged.

### ***Specification***

2. The disclosure is objected to because of the following informalities: 1) page 1, last line, "a immersed" should be replaced by --an immersed--; 2) page 6, paragraph [0022], immersed" should be replaced by --immersed--; 3) page 6, paragraph [0023], "emerged" should be replaced by --immersed--.

Appropriate correction is required.

### ***Claim Objections***

3. Claim 5 is objected to because of the following informalities: On the penultimate line of claim 5, "therebeneath" is misspelled. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 9 and 10 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by McLane (Fig. 3).

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With respect to instant claim 10, the canister (25) of the reference apparatus is clearly secured to ancillary structures, which maintain the canister structure in a fixed location and thus such structures anticipate the broadly recited main frame.

6. Claims 16, and 20-23 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by West (Figs. 1, 4, and 5; col. 2, lines 10-11; col. 5, lines 24-40; col. 7, lines 32-45).

Applicant should note that the reference teaches that the flame may be infinitely variable through modulation, and thus the reference clearly envisaged modulation of the flame between radiant mode and blue flame mode. Furthermore, the reference teaches injection of the flame into the tube bundle, thereby at least partially placing the combustion chamber within the evaporative tank (tube/shell exchanger). Lastly, the burner as shown in Figure 4, clearly includes a choke and in view of the disclosure at col. 5 of the reference, the injected cooling layer of air within the flame area anticipates the limitations of instant claims 20 and 21. With respect to the gas flow speed of instant claim 22, such is a process limitation that is not seen to limit the apparatus structurally and thus cannot be given patentable weight.

***Allowable Subject Matter***

7. Claims 1-8 are allowed, since the prior art of record fails to disclose or suggest the specific canister and movable frame structure of instant claim 1.

8. Claims 11-15, 17-19, and 24-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The claims are allowable based upon the subject matter set forth by instant claims 11, 17, and 19.

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***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant should note Kushch et al (col. 16, lines 13-21) wherein it is disclosed as conventional to operate a burner in a modulated manner between radiant and blue flame mode.


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Bushey whose telephone number is (571) 272-1153. The examiner can normally be reached on Monday-Thursday 6:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Scott Bushey  
Primary Examiner  
Art Unit 1724

csb  
4-28-05



4-28-05